\_\_\_\_\_\_

Sequence Listing was accepted.

If you need help call the Patent Electronic Business Center at (866) 217-9197 (toll free).

Reviewer: Keisha Douglas

Timestamp: [year=2008; month=9; day=17; hr=10; min=27; sec=56; ms=151; ]

\_\_\_\_\_\_

## Validated By CRFValidator v 1.0.3

Application No: 10510953 Version No: 2.0

Input Set:

Output Set:

**Started:** 2008-08-14 16:41:20.901

Finished: 2008-08-14 16:41:36.591

**Elapsed:** 0 hr(s) 0 min(s) 15 sec(s) 690 ms

Total Warnings: 531

Total Errors: 0

No. of SeqIDs Defined: 531

Actual SeqID Count: 531

Error code		Error Description								
W	402	Undefined	organism	found	in	<213>	in	SEQ	ID	(1)
W	402	Undefined	organism	found	in	<213>	in	SEQ	ID	(2)
W	402	Undefined	organism	found	in	<213>	in	SEQ	ID	(3)
W	402	Undefined	organism	found	in	<213>	in	SEQ	ID	(4)
W	402	Undefined	organism	found	in	<213>	in	SEQ	ID	(5)
W	402	Undefined	organism	found	in	<213>	in	SEQ	ID	(6)
W	402	Undefined	organism	found	in	<213>	in	SEQ	ID	(7)
W	402	Undefined	organism	found	in	<213>	in	SEQ	ID	(8)
W	402	Undefined	organism	found	in	<213>	in	SEQ	ID	(9)
W	402	Undefined	organism	found	in	<213>	in	SEQ	ID	(10)
W	402	Undefined	organism	found	in	<213>	in	SEQ	ID	(11)
W	402	Undefined	organism	found	in	<213>	in	SEQ	ID	(12)
W	402	Undefined	organism	found	in	<213>	in	SEQ	ID	(13)
W	402	Undefined	organism	found	in	<213>	in	SEQ	ID	(14)
W	402	Undefined	organism	found	in	<213>	in	SEQ	ID	(15)
W	402	Undefined	organism	found	in	<213>	in	SEQ	ID	(16)
W	402	Undefined	organism	found	in	<213>	in	SEQ	ID	(17)
W	402	Undefined	organism	found	in	<213>	in	SEQ	ID	(18)
W	402	Undefined	organism	found	in	<213>	in	SEQ	ID	(19)
W	402	Undefined	organism	found	in	<213>	in	SEQ	ID	(20)

Input Set:

Output Set:

**Started:** 2008-08-14 16:41:20.901 **Finished:** 2008-08-14 16:41:36.591

**Elapsed:** 0 hr(s) 0 min(s) 15 sec(s) 690 ms

Total Warnings: 531
Total Errors: 0

No. of SeqIDs Defined: 531

Actual SeqID Count: 531

Error code Error Description

This error has occured more than 20 times, will not be displayed

```
<110> Marliere, Philippe
 Kaminski, Pierre-Alexandre
 Galisson, Frederique
 Bouzon, Madeleine
Pochet, Sylvie
 Weissenbach, Jean
 Saurin, William
 Robert, Catherine
 Vico, Virginie
 Institut Pasteur
 Centre National de la Recherche Scientifique CNRS
 Ginoscope
<120> Gene bank of the cyanophage S-2L and functional analysis
<130> 261089US0XPCT
<140> 10510953
<141> 2005-12-02
<160> 531
<170> PatentIn Ver. 2.1
<210> 1
<211> 45570
<212> DNA
<213> Cyanophage S-2L
<400> 1
gcgccctgtc ggagggtcct ggacgacacg gtgacgttca aggtgggcgc catcggatgg 60
ccctgcgccc tggggatctt gtcaaggtca tggacccgga caagggcggg gtccgcttcg 120
geggtegggt ggttgeecag gaeggegaca egateaeget egaegeggea eeceegaeae 180
cggaagccga ccggggcccc gcgccacgac ggcaccggga tgaagccgac cggggccccg 300
cgccaggggc ccccggaggg ggtgccgccg agggggggt cgtaggccct gggcggggtc 360
tgccagaccg ccgggctgtc gggccgctgc ccacgccagc cggggcgccc cgggtcgggg 420
atgaagccgt caggtggggc gtcggcccag gccgcagccg gcaccagggc cagcaggagc 480
agcaggagcc tcatgcggcc tcctgtatgg cggcgtagat ctcccggagg cggtcgccgg 540
tetggeggat etgeteeggg gtgeagggga egaegtegag geggaeggee eeggteteeg 600
agcagacgta gggcatgtgc ggctcgaggc cttcgggccg ggtcgagggg gcgtcgttca 660
ctggggcacc ccctgggtcg aggtgggctc ccagccgccg tgccccagca ccagatccac 720
cccggcgatg cccagatcga gcttgcggct ggcgaggatc tccttcctct tgtgctgggc 780
cacctcgata gtcagccagg ccatgccatg ttggaggacc gagtcgatgt gcggggtgta 840
ctcqttqaaa tcccqqttqa qctccaqqaq qtaccaqccc cqtttqtcaq tqaqqqcqta 900
gacggtcctc cgaggacggg agtcggtagc agcgttcgaa gtgggcgagg acatggggat 960
aggacgagtg gacgaactgg geeteggegt eaggggeegg tgeegaggee ggaggggtag 1020
gcggctgtgg gcggcgggt gggaccccca gcaccaagcg gatcaggcga aggagcagca 1080
acatagacgg ctgtaaggac ggcgaggact gctgagagaa taggggagct catgaggcgg 1140
```

ctctgcgcat gcgggattcg gcgttgggga ccacgtgcca gttggcagac gaggccgggg 1200

```
tgacgacggt ggcgccgttg gggtgcttcc agatcaggtg cttgccctgg cggtggaggt 1260
agaageeeca tegettggee geageetega tetggegeet gtagetaeeg gaeaegggae 1320
aggtectece gggettegge tgggggetee tecageeaga egegeatgee geegaegagg 1380
gcgcagaggc gtccctcgca gctgaccacg cggccggccg gatagttgag gacctggggg 1440
ctgagaggca tcccggggag cgggtgctgg atgcggagtc tgggcatggt gtcagagggg 1500
ggagggggtg ggctccacca ggtcgagccg ggtggcctct tgaagctgtc gctccacctg 1560
ggcgtggtcg tcgaggaacc gctggaggtt cgcgacgacg cccggctcca ggtaggcgac 1620
catgggcgag cggtggtcgt tgacgcggat ctccaggccg tagccatcga aggtcgcgta 1680
gacgccgtcg ccgacgtggc gggtctgttc ggacatggga tcaacggcaa gcgagagaga 1740
tcaggcgctg ggtgtcggag atgtccttgg gggtggagtc ggggttgacc atctccagga 1800
acagcaggtg ccggtaggcg gtgcaggcgc cctgcccgtc accacgggca cggctgcgga 1860
cgccatactc gagtgcgccc agctgggcgt agaggcgaaa cacgcccgtg ctgggctcga 1920
geggggaege etgegetgtg gtggeggega agaegaegag geeaeegeag aaggtggaaa 1980
ggaaggcgta gaggggtete atgggagggg gtggaggtgg acaeetggaa aggggeeeet 2040
gggggccccg gaggggttcg gccgtggccg gggggggtca gcccaggctg agggccagct 2100
tgcgggcctc ggccagggtt agagactggc agtcggcatc gttggcgatg tcgccgccgg 2160
ggcggacgat ggtgtagcgg cccatgcgga cccaaccgga catgtagtag ccggcggccc 2220
ggagggcatc ctggatctgg gccttggtca gggccttggg ggccgctgtc gtgtgggcga 2280
eggtegeete gategeeegg eeeeegatet tegeagegge tgegatggee aggeegggge 2340
ggccggccca gctgtgggcg aaccaggtgc cgtcgctgga ctggcgggcg acgcagtggg 2400
tgtaggtgcg ctcggccgac ttgcgggtgg cggtggtgcc gtcggggagg gtggccggtaa 2460
aggtggtggc cattgggggg aggagcggtg gaggggcagt teceeeteeg tteeactatt 2520
aaagcacggg agcaatcccc gcgcaatatg tcacagacgg atcgagtcag ccaggatctc 2580
aagccggcgc accagttccc gggcctgctc gatctggtgg tccagccggg cggacatcgg 2640
gcaaacgggg gccgccgaca tcttctcgag caccggggcc gccatggggg gctccatcga 2700
cagcaccggc tcgagccgtt cccagaggcg ggaggtggag ttgtgcgtct gctgcagcag 2760
gtcctcgagg geggacatet getecaggae geegggggtg ggggeggaee tgggggeget 2820
ctctcggatg gcgtcgtacg gatcgcgggg catgagggcc atgggcggtt ggaatagggt 2880
gggggccggc ctgagccggt atccccacta tagcacgggg caatcagccc tcgtcgtcgt 2940
egecetegte ggggtegggg eageegaget tggtggegag etectecace agetggttaa 3000
aggegeagta etegatgteg ttgatetegg egtggateag eggegeeagg gtgeeeeaga 3060
cgttggcgtg ggcctggccg ggctcgcagt ggtcgtacag atcggcgggg agctcgtcgg 3120
ccctgtaggc ggcggtcagc tggtttatgg agtcccaagc ctgggagatc agctggaggg 3180
cggtggcttt gtccatggtg ggggagcggt gggggcgctt cggcccccgt atacctatta 3240
aagcacggcg gattcagccg cgcaatacct cagcggagat cggggttcgt agtggtccac 3300
ccctgggcgc ggtatcggcg ccagtcggct cgggcctccg ccaccccgac ggtgtgggtg 3360
tegtgggeat ageeggaeea ggtgettate eggaeggeet ggeegteace eaggggeatg 3420
tagctccggg agacacggtg cagaccagag agcaggggtc ctggcaggta gagcttgtga 3480
ateggetggg atetegaeat egtgggggga geagtggggt gggaeggggt gggggeegtg 3540
gggcccccgg gtggctcagg ccaggttgac cttgacgtgc tcgatcagct gcgccacctg 3600
gctgtgcttg tagagggtgc cccagtaggc gatccgcttg tactggtcct acaccaagta 3660
getgageece teetggeegg egtettggat gaegaeggtg ttgeeetega tggtgegetg 3720
ctcgaggtcg gcctcgagga tgcgcaggtc gtcgattacc tcagcccgcc aggggccaag 3780
ggttaggccg gcttcggcga actgggtgtg gatggtgtcc atggtttgga agcggtgggg 3840
gegeetegge eecegtacaa etattaaaac aegggggatt eagetgegea ataeeeeggg 3900
getggteage eegeeaggta ggegaaggee teeeggatet eggegtegta gaegatette 3960
teggtgaggg tgeecaggtt gtgeteetgg cagaaggeea eggeeteetg gaeetggtat 4020
atggggccag agategtgta gtggcaggte gageggaagg tecaetegat etgggegeca 4080
cagccggcga ggatctgggc ctcgatctgg cgggcgatgg cggggagggt ggcgcggtcc 4140
atggggteet gtgeggtgta tacetattaa ageaeggegg attaegagge geaataegee 4200
teggeeeagg ceaggatete ggeeeggttg eecaegaaca eeaeeegete etegeeecae 4260
tggggctggt cgagggggt gccgtagggc ataccgtcgg cgacccggac gtggtagatc 4320
ggggcccggc tgctgccctg gcgccggcca tgctgacgat cgaagtgcac ctgagcgggg 4380
ccgttggcgc cccggtgctt gcggcactgg gagatggcca tccgggcggc ctggagggtg 4440
cgtaacttgg ccatggggtg tcggggtggg gtgggacgag tgaggggccc ctcccggggc 4500
ccggaggggc tcagcggccg gccgccatct gggccttgcc ggcgtcggtc agcaccagca 4560
cccggtgcga cttgcgggtg ccctcgatgg tggccaggag gccggccttc ttgaggttgg 4620
```

```
teaggegggg egeeteggtg agggggatgt geaggaeggt geegageatg geaecaegge 4680
cctcgccctg ctgctcaatc accaggccga ccctgtagaa cagcgccttg gtggcgtcgt 4740
tgagggegte ceaggtgaag eeggteeget tgggetggeg gggeteeggg gtgtegagge 4800
eggtetgggg ggeageggtg eggeageegg eggeggggte caeeeggtgg teggeggegg 4860
cctcggagat ggtctgggtg gcccgctgct cggcggttggc ggcggtcatg ccctcggcga 4920
eggeggeete eteggegaeg geetgggega egatggeete ggeettggee aggeegatee 4980
gettgeegtg geagtagaag tageegetgg gggtgeaggt tatgeegeag taetegaegt 5040
tetgetgget gtatteggeg geeagaaegg ettegtegag ggtggtgggg gtggggaaga 5100
agtcagacat cggaggggtg gcggtggggt ggggttggtg cccccggact gctgggggct 5160
ggtcggcgcg tgggtggcgc ctggtgcccc cggactgctg ggggcgggtc ggggctggac 5220
tgctgcccct ggtcggcgcg tgggtggcgc catcgggggg ttgtctctcc ccccttgtat 5280
aactattaaa gcacggcggc tgtgcctgcg caatcccctg catagccact tcacagactg 5340
tcacacttcg ggcctggcga cggcggcgga gctcgtcccc gtaggtgtgg gcctcgtcct 5400
cgtaccgccc ctcggcgacg gggttccacc cgcgcatgcg ctcggcggcc tggcgggcat 5460
cccgagccga ccaccagagc tcgtagtcgg tcatcgaccg ggccttggcc tcccagcggg 5520
cgaagtcggc agcggtggca tggtgggcgc aggacatggt cggggtggcg gtgggggga 5580
ggggggatgg gcccgggggg cgccgggggg cggctcaggc cggcagcagg tcgtcccggc 5640
agatcggggt caggacgtcc cgcttggcaa cctcgacgag ggtctcgtgg ccgagcttgg 5700
cattccagac ccggaacttg gccgaggtgg tgtggggcc ccagtagccg ggggtgcggg 5760
acagccacac caggageteg acegageteg aceaggteag gteeeggttt agageeegea 5820
cctcgtgggt ggccatgggc tggccgttga cggtaaagcc cgccacccgg ttgccgactt 5880
cgtccagctg atcagattca cgagaggagc ggcccctggg ccgtcgagtg gggcattccg 5940
cccctgttcc actattaaag cacggaaaaa ccccggacgc aatacgcccg gggtcgggat 6000
gggggccgaa gcccccgggt gaatcagccc aggtcggccc cggtgtgggc ggcccagatg 6060
gcccggccct cgtcggtcag gcggagcatc ttgtgggact tcttctcgcc ctcgacggtc 6120
tecaggagge eegeettett gaggttggte aggegggggg egteggteag gggeaeettg 6180
acgtcggtgc ccaggcgggc ggcggcagtc atgccgtggt cccgggtggc ggtctggatc 6240
tectegeaga ggeggaagaa eaggteettg gtegeetgat teagggeate gaaggagaae 6300
ceggtgeget tgggetettt ggtetgettg geggtggett eggteatggg ggettegagt 6360
ttggactgga tgtgggcgag ggcggcctcc tcggtgcaac gggtgccgtc gatgctgaat 6420
cggccgcttg ggtgaacctt cacaccgtaa ccaccagcgg gggtgttatc gcgctgggcg 6480
acggtggtcc aacgcttgat gagatcggcg ggctgaacgg tcatgggtgg cgaggcggtg 6540
gagategtgt etgteteegt teeactagta aageaegggg getatgeeet egeaatteee 6600
cgaatagacg gttcacaggc tgtaacaaac gccctgctcc cggaggcggg cccgcagccg 6660
etgeaggteg geggegga eettetegee gteeteeage egetgeagea eeggetegag 6720
ctccgggccc gccgcctcac aaagccggcg gtacaggtcg gggtcggtct caggcggggg 6780
cggggcggcg gcctcaaact cgctaccatc ctccagcttg ttccgcatgg cgccggtcga 6840
caacaccacc gagcagagcc tggccccac gacgagctcg tggtcccggc gcccaggccg 6900
gegegeteea ggatetgete egggtgeege eetegeeate ggeetetgtg tagteggtaa 6960
gattattttg ggccgtaagt gtcataccga tgctgccgtg gataaggtaa atcacacggg 7020
tgatcgattc aaggataaaa cacatccggt gcgtgcattt attgttacag aagctgcgga 7080
tgtagagete ggeggaaege tgeaggeega tgaeeecete etggageagg teggegtaeg 7140
teagggaggt geegtegagt egeegggtgt agtaceggge gategatgeg accaggegea 7200
ggttgcagag gacgaaccgg tcccgagccc gtctgccgga ccggacgatg gccgggggca 7260
ccggctccgg gtgagtcagc caggcttgga tccggcgccc caggaggatt tcctcccggc 7320
gagtgaggag ggggtacttc ccagcgatgt cgaggaaggg caggtcgtct gacaccaggg 7380
tggggcgtgg aggctgtgct accatagcac agcgctatgc cacccacaat gccgaatgcc 7440
ctcgaacgga ccctcaacca gaggggcacc cagtacggcc cagcccggga gcagtgggcc 7500
ctcgcccagc ggatcaaggg tgccatgcgc agcaccgagc gattccacgt gctgagcccg 7560
gttgaggccg aggccctgga ccagatcgcc accaagatta gccgcctgat ctctggcctg 7620
ecegageage acgaeacetg geacgaeate geegggtatg ceaecgtgge egageaggeg 7680
etgegegagg aggeegatge aggaetggae tgagateetg geeagggegg ggeteeegga 7740
gececeeggg taeegggaga egetegeega gatgegeegg eeeggataeg aateegagge 7800
ggccaagtgg cgccgtctcc aggccgaggc cgcagcggcc cgggcagagg cggccaaggc 7860
ggccaagegg agggegegat gaaggtggte gtagaegege teatgggege egtegeeeag 7920
tegatgtegg egttettete gegeeeegte aeggteeaag aettggagge etggggeaae 7980
cacctgtacc tggagcatgc gggccccctg ggcgacgccc caccgggtgc ggcctggtcc 8040
```

```
caggagtggc ggatcctgct tgacgggcag ctggtcggcg tcgtccagca ggtcgctttc 8100
cgccagggcg accggctcca ggtccgctcc cggggtgggg tgcgtccgat gtatctgtgt 8160
gctatgctgg gagtagagga ccggaagaca tgaaacgaga cgacatcaag ggcgcaccgc 8220
tgatectgge caeaggaege ggtetaeece eegaeeegaa egageegeee aagggegaee 8280
tggccgcctg ggccgcctac cacggcatcg agtacgtcaa ccgggcggag gagccaccgg 8340
cacctggcga agaaccacgc gggtgaacgc gccctcagcc ttgggctgat acccacctgc 8400
getettggee ggggtggeee etteetegat geggaeeace tegtagegga eeeeeteegg 8460
catgagcacc tcgagctcgt cgtcgaactt tgacatgctg gagatgggga cgccgtggag 8520
gttgtcctcg actacgtatg tcaccgagta ccggtccttg cggtacaggg cgttgaaccg 8580
gtaggacacc gactegtegg tggtecaget ttecagegtg ategaegget ecceggeteg 8640
gatgeggegg atgteeteet egatggeege tttgetgtgg tagegeatge eeeggtaggt 8700
egggeegeet ttgtagaegg gegeegtegt gatgaagtee tegageeggt eggeettgte 8760
gagtaggtet gecageeggt egteggaeat etgetteetg gecatetget taccaaaate 8820
ggtcagatcc atgeceeggg cetgggegge etteacetgg geggtgegga teteggtgta 8880
accagageeg gteeagtege geaegaegge eeggtgettg gtgeggtaet tgtgettgat 8940
gtcggttgtg gtgtcgctat tacgacgggc acgcacctca gaatacagcc tgggcggtgc 9000
cggcggtgcg ggggccgggg ctggggccgg gcgggcacga cgtggcgccc gggtgaccac 9060
gggaggggcc ggagccggcg gcggggccac tggtgcgggc tggaccaatg gaggggccac 9120
actgccgggc cgcaggaget cgaccacggc cccctgggga tecttgacgt acttgccett 9240
ggggccggtc agcttccgga accgggccag gcgggccttg gtgccgagca ccgcctgggc 9300
ggtttcgtcg ttggaccgct gcagcatcgc cccgacggtg cccccggggt tgtcccggcg 9360
ccggacccaa tactgctggc cgttgatctt acggggcgtc ttgtaggcgg cctccccggt 9420
ccagccggcc ggcggggca gtcgtttgcc cttggcgtcg tactgcaccg gcacctgttc 9480
gaggtaggte teeggeaggg egeceagggt gtegeteage ggggtgageg geaggateeg 9540
gcaccgctcg ttccagtggg ccggccaggg ggccttcttg cgctccttgt acctggtgcc 9600
gtcgagcggg gcgcacaccg ggcagagccg gccgtcgttg ctggcgtccc agatgtagcg 9660
gttgccgtcc ttgtctccca ggacgtcctc gttggcctcg ttgaatgcgt catgcgccgt 9720
ctggctggcc tgggccatcg acgtacggac cagggcttcc acctgccggc ggttggccgt 9780
ggccatcgcc gtccggacgt cggcgacgat ctcggagttg gatttggaca ggaggaagcc 9840
ctcccggagc cgggcctcga tcagcttcgt ctgcccctgc tggaatgcag cggtcgccgt 9900
gccgatggtg tagggctggc ccgacgcctt ccggaggagc ccagggaatg tccggaagcc 9960
cgtatcccgg gcgacggcca ccagctgctg cggggtgacc gtgacgcccc cgacgcccac 10020
cgagaggccg tcgacgccgc aacggccacc ggggtcgccc cgacggcccg caggtaggtg 10080
teggeetgea ceageeeete ggagaaegee tgggeetggg eegggggeag eaeggegteg 10140
atceggtege egacggegge cacetgggee tggatgaegg egagegtetg gtteaggege 10200
actgccgctc gagccggccg gcgggcagcg tctggagctc ctcgaggatg cggcgggtgg 10260
cctgctcgta ggtcgggagg atccggctca gcgcctgatt cgagaggctg cggagggcga 10320
actggtcccg gacgaccagg gcctggggat tcactcgtca gtctccgggg ggtcggcctc 10380
egggtegget teegggtegg eeteeggate eggggtgteg geeteegggt egageteete 10440
cteggtetec teggeeteet egeeetegat ggtgteeegg ageteetega egteeaeget 10500
gtcgggcagc cattcgccgg tctgccagac cgtcaggaag gtctccaggt cgatgccgcc 10560
ategatgtac gccttgaggt agageteege etecteetta gteagettgg egtggtegaa 10620
gtcgctgtcg atgacgaccg tggacgcctc ccggccggtg tactccccac accagttcat 10680
gacgatetgg agegtegagg ceaggteteg ggegatgace gagageatge tgttggatte 10740
ggcccggtca agtgtcttgg ccccctcggt ctcttggaag gtctgctgct gggtgaggac 10800
cgagatgeec agetgggtga tetgeteett gageaectee agttettet ggtgegeete 10860
gcagctggcc ccggtgatct cgcaatactt ggagccccca ccgatggggt actgcaaggc 10920
gctgttgacc gagagcccga tctcgccatc ggtgttggtc gggtccaggt cgtcggcctc 10980
ctcgtcgtcg tcgccctccc agccgaccat gtcaaggatg ggctggccgg caatcgtcag 11040
cacctgggtc aggtcgctgc gccgttggaa atgggccagg ttgagatggg cgcagtcctc 11100
gageggggge eggetgagea geaceceete ettttggetg taggtegtgg eeagggggat 11160
ctetttgagt gtggtgtege egetetegte etegaeette teceaggegg tgeeggteag 11220
gegeageace tegtaggege eeggggteag caceeggate tgeteetega egttgaeece 11280
gtacttgccg gcgggcacct cgacgtactc ccggatccgc acctgctgga ggccggagcc 11340
ctcccggggg ttgtgccggc ggccgatggt ggcccagcag ggcacctgca ccagaaatgg 11400
cttgtccccg gccagccgct ggtcgagcag gctctggcgt tcctcgctgg tgtagtcggc 11460
```

	ctatgcccgt					
	ccctgacggt					
cccctgcagc	tggatcggct	tccggaggat	caggccggcg	cccccggat	caggcgggcc	11640
aggtaggggg	tgtacaccgc	ccgggagacc	cgcccgatgt	actgccgttt	acgctcccgg	11700
gggaaccggg	gcaggtagta	atcgcagaac	gcccggaggt	accggacgcc	ctccaggttg	11760
gcccggatca	cctcccagcg	gcgcagcatc	acccggtagg	tcaggtccgg	ttcgttcggg	11820
tegteeggeg	ccagggagtc	tcctcccagc	tttgcctcgg	ccagggcctc	gggattcagg	11880
accgtgtgat	cccgccagcc	gagggcggga	tccatcgggg	cggaggaggg	cgtctcagtc	11940
ataccccgga	gcttagacca	gcgagaagtt	ggaagagccg	gaacgccagc	ccttgacgcg	12000
gttgcaggcc	gacagggcca	ggtaccccag	gccgtccgtc	cagtgctcga	tcccgggctt	12060
cttgtcgatg	gcgaagccct	cggccccctc	cttgacgcag	acgcctcgga	ggcccttgat	12120
ggtcttcttg	caccgggggt	gaatgcgata	gtggcgctcg	ccgtcggcgg	tcatgaccag	12180
cgcgttcgtc	gcgttgagct	tgtccttgac	gccccagggg	gagttcgggg	tgaggacctt	12240
gaggccgtgc	ttccggagga	tcgtatggtc	ggtgacgccg	gcctcggcgg	acgtcttccg	12300
gctgttgccc	gtcgggtcgg	ggcagaccac	gaccttgcgc	ccctggaacc	gctcggccag	12360
gtagcgcccc	acctcgtcgg	tgttgctgtt	cggcatgttg	atctcgtccc	actgcagcag	12420
ccgcttgccc	gggaggatcg	agcagatgac	gccggccatc	accgacacgt	taaagtcgag	12480
gccgacgtag	accgtgccgc	cgttgtcctc	ggcgccctcc	cagatgttct	cctggccgaa	12540
gtcgtagtag	gcccggccgg	cagcagcctc	gaagctggcc	tcgtactcct	ggcggaaggt	12600
gcgggggtcg	aggtggttcc	gggccttctc	gatctcggcc	tcggagaccc	ggccgccctg	12660
gatggtggtg	aactcgaagc	gggcccattc	cgggtcctcc	tccaccgact	cccagagctc	12720
gtggtaatgg	ttgaagccct	tcggggtggt	gatctgccag	cacggcccct	cctggtccga	12780
cagcgccggc	tgcagcacct	cggtccagag	ctccggcttg	gtgaacgccg	cctcgtcgat	12840
gacggccccg	gacaggctgt	cgccccggag	gctgtcgggg	ttgtccgccc	caaagagcgt	12900
cagcgtcgcc	ccgttccaca	ggtcgatccg	gagctcggtg	ttgttgatgc	cggcgacata	12960
tgtcgggtcg	atcagcttct	tgaggcgctt	ccaggcgatc	cgcttggccg	cccggtaggt	13020
cggggcgacg	taccagtagt	tgccctccgg	gtgggacatg	ccccagttcc	ggaggcggat	13080
cagggccagg	tgcgtcttgc	cgaagcgccg	gccgcaggtg	agcaggacgt	tgcgccggcc	13140
gcacgtgtag	atctgcgcct	gggggccgct	gagctcccgg	atcgactggc	gctcatcaaa	13200
agctaggttg	gatccccggc	ccgaccggga	gccgaggatc	gtgccgccgc	aggtggctgg	13260
gaagagcatg	tagcgggtac	gacgcccata	tcctccacct	taatagtggc	tctgttccgc	13320
agctgcagga	cgagctcctg	ccgatcgaag	cagtcgatct	ccgcctgcgc	gagcatgcca	13380
agcaggtcct	cgaatcgggc	ctcggcgatc	gcccggtccc	cgcaccagag	gcggcagtcg	13440
gcccctgggt	gagagagggc	ccagtctctc	aaccgggcca	gccgctcgtg	gagcctgtgg	13500
ggcagcatca	cgtcttcttg	atcgtccgct	cgaactggaa	catgagctcg	tcctgcacct	13560
ccacatccaa	caccgagtcc	atcaggcgcc	gtttcatctg	ctccatcagc	aggtgctgga	13620
cgtcgtaggc	gtgggcgccc	aggccgttga	ccttgaggaa	caggacggcc	tcggcggtgt	13680
cgcagaactt	ccaaagctct	ctggcctccg	gggccatggt	cgcctcgagc	tcggccacct	13740
ccgggacgat	ctgggcctcg	atgccggcca	ggagctcctt	gagctccggg	gtcttgtggg	13800
gcgtcggggc	gtcgcccgtc	cggatctcgg	ccaggtcgtg	gaccagggca	aactcgcagg	13860
cctggcggac	cgtgtgctgg	ggcatgccgg	cggcagcgcc	ccagtcccgg	cacaggagcc	13920
aaacgcgcca	catgtgttcg	gcgatgttct	gcgggtaggt	cgtctggacg	atcccccacc	13980
ggctgatgtg	ggacgccctc	aggcgctcgt	aggtctcggt	gatctggagt	gtcatgggaa	14040
ggagggggta	tegg					